

ABSTRACT

A humidifier and quick response steam generator for supplying steam to the humidifier in a humidification system is disclosed. The humidifier has a modified geometry to reduce resistance, and is multi-passage structured to uniformly arrange humidifying nozzles in an air flowing duct so that absorption length can be shortened by improved mixing, thereby enhancing humidification capability and allowing humidifying tubes to change in number. The humidifying tubes can be easily detached from humidifying steam headers for replacement allowing the number of the humidifying tubes to be adjusted according to humidifying capacity, and can be designed as thimble tubes so that pneumatic pressure loss due to installation of the humidifying system can be reduced and steam of very uniform temperature can be supplied to air flow, thereby obtaining an air flow of uniform temperature and humidity.